

SCIENCE

And Technology Program



Bill Evans, Cornell University; Barbara Raulston

FY 1999

The Colorado River floodplain can span a mile or more and is often populated by dense groves of native willow and cottonwood, and non-native saltcedar. Such areas are the acknowledged habitat for the endangered southwestern subspecies of the Willow Flycatcher. Three to five hundred pairs of the subspecies are known throughout its range and extensive surveys for the species have been underway in the 1990s. One of the barriers to successfully surveying the abundance and distribution of this species is that much of its habitat is very dense and difficult to systematically survey using traditional foot surveys. What were the project objectives:

Low altitude balloon flights have been shown to be effective for documenting the presence of vocal species in remote or difficult-to-survey habitats. In spring 1998, tests were conducted to assess the feasibility of this technique for locating southwestern willow flycatchers (*Empidonax trailii extimus*) in dense thickets along the Colorado River.

Following the 1999 field season, it was concluded that low altitude balloon flights are not ideal for locating Willow Flycatchers. Due to relatively small patches and narrow ribbons of habitat present on the Lower Colorado River, it was difficult to maintain the balloon's flight path over the targeted areas.

Colorado River Indian Tribes - Game and Fish Department

Arizona Game and Fish Department

U.S. Fish and Wildlife Service, Lower Colorado River National Wildlife Refuges

USBR Technical Service Center, Denver/University of Colorado, Fort Collins, Colorado

Final Report from Bill Evans due to USBR, LC Region, October 1999, under Cooperative Agreement # 99-FG-30-00029, titled Remote Balloon Surveys for the Southwestern Subspecies of the Willow Flycatcher.